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which these specimens were gathered, was surrounded by others, the culms of these surrounding ones interlacing those of the plant exhibited, but only this one plant was infected. He did not count the number of culms, but felt safe in saying there were over fifty. In walking through this field among many hundreds of plants of this *Panicum*, he saw only one other plant, which in like manner was infested. This had one perfect panicle only among the numerous infested ones—the interlacing branches of surrounding plants of the same species being free, as in the other instance. It was scarcely credible that sporidia of the *Ustilago*, floating through the atmosphere, settled on fifty separate culms of one plant, and not one on the culms of adjacent plants which were growing in and among them. Again, the leaves of the *Panicum* have a large spathaceous sheath, two or three inches long. The *Ustilago* attacked the panicle while closely swathed in this sheath, and fully perfected its growth entirely therein. He had indeed to unfold the sheath in order to detect the mass of “smut” to which the embryonic panicle was reduced, in order to detect its presence. Only the peculiar appearance of the grassy tuft having no inflorescence as in the case of its neighbors, drew attention to the plant in the first instance. If it seemed incredible that fifty culms interlocked with as many from other plants, should each receive a germinating spore alone, it was still more incredible that the spores should have found their way from the outside to the interior of these tightly twisted sheaths.

These observations did not prove that the sporidia entered the plant by the roots, and made their way in some incomprehensible manner through the structure to the inflorescence; but they did render the external-entrance hypothesis doubtful, and, in connection with Queckett's experiments, are possibly of some worth.

Dr. LEIDY made some remarks on Mr. Meehan's communication, showing that the tendency of modern observations rather favored the view that the entrance of the sporidia of microscopic fungi was from the outside.

*Sexual Characters in Cephalotaxus.*—MR. MEEHAN exhibited some fruit of *Cephalotaxus Fortunei*, a Chinese tree, this plant growing on the grounds of P. J. Berckmans, at Augusta, Georgia. This tree had for many years produced male flowers only. During 1882, it produced abundance of fruit. It showed that the genus was not truly dioecious, and further it afforded an illustration now not uncommon, that trees a long time of one sex only, would sometimes change to another. Sex is not an invariable characteristic in an individual tree.

*A New Infusorian belonging to the Genus Pyxicola.*—Prof. LEIDY exhibited drawings of an infusorian, a species of *Pyxicola*, which appeared to be different from those previously described.

It is of frequent occurrence, attached to the tubes of *Plumatella*, *Urnatella* and *Cordylophora*, on stones, in the Schuylkill River, below Fairmount dam. In shape it resembles *Pyxicola pusilla* and *P. affinis*, fresh-water forms of England, but is annulate as in *P. socialis*, a salt-water form. It is represented in figs. 8 and 9, Pl. II, and presents the following characters :—

PYXICOLA ANNULATA. Lorica urceolate, slightly curved, inflated towards the middle, tapering below, cylindrical and feebly contracted at the neck, and with the aperture oblique and circular; variably annulate, mostly at the neck, often at the middle; color chestnut-brown, but colorless when young; pedicle short, always colorless. The contained animalcule is of the usual shape; with an attached operculum, which is of the same color as the lorica, and is protruded beyond this when the animal is fully extended. Length of lorica, 0.52 to 0.792 mm.; breadth, 0.02 to 0.0264 mm.; length of pedicle, .004 to .008 mm.

The following was ordered to be printed :—